



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of

Mark Hernandez et al.

Serial No: 10/627,947

Filed: July 25, 2003

For: REMOVING METALS FROM SOLUTION USING
METAL BINDING COMPOUNDS AND
SORBENTS THEREFOR

)
) Examiner: Not yet assigned

)
) Art Unit: Not yet assigned

)
) Attorney Docket: MJ-1

)
) Date: January 28, 2004

CERTIFICATE OF MAILING I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on January 28, 2004.

Signed: 

Michael Pritzkau

Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed is a copy of Information Disclosure Citation Form PTO-1449 together with copies of the documents cited on that form. It is respectfully requested that the cited documents be considered and that the enclosed copy of Information Disclosure Citation Form PTO-1449 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant(s).

Pursuant to 37 C.F.R. § 1.97, the submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed as an admission that the information cited in this statement is material to patentability.

Pursuant to 37 C.F.R. § 1.97, this Information Disclosure Statement is being submitted under one of the following (as indicated by an "X" to the left of the appropriate paragraph):

X 37 C.F.R. §1.97(b).

37 C.F.R. §1.97(c). If so, then enclosed with this Information Disclosure Statement is one of the following:

A certification pursuant to 37 C.F.R. §1.97(e) or

A check for \$ 180.00 for the fee under 37 C.F.R. § 1.17(p).

37 C.F.R. §1.97(d). If so, then enclosed with this Information Disclosure Statement are the following:

(1) A certification pursuant to 37 C.F.R. §1.97(e);

(2) A check for \$ 180.00 for the fee under 37 C.F.R. §1.17(p) for submission of the Information Disclosure Statement under 37 C.F.R. §1.97(d).

Respectfully submitted, 

Michael Pritzkau

Registration No. 37,913



PTO/SB/08A (Modified) Information Disclosure Statement By Applicant Sheet 1 of 2	Complete if known Application Number 10/627,947 Filing Date 7/25/2003 First Named Inventor Mark Hernandez Art Unit Not yet assigned Examiner Name Not yet assigned Attorney Docket Number MJ-1
------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

U.S. Patent Documents

Examiner Initial	Cite No.	Document No.	Publication Date	Patentee	Pages, columns, lines, where relevant passages or relevant figures appear
	A	4,536,189	August 20, 1985	Sung	
	B	5,500,126	March 19, 1996	Fries	
	C	3,870,033	March 11, 1975	Faylor et al.	
	D	5,645,730	July 8, 1997	Malachosky et al.	
	E	5,112,428	May 12, 1992	Correa et al.	

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	F	C.P. Huang and D.W. Blankenship, "The Removal of Mercury(II) from Dilute Aqueous Solution by Activated Carbon," Water Res., Vol. 18., No. 1 (1984)
	G	A. Netzer and D.E. Hughes, "Adsorption of Copper, Lead and Cobalt by Activated Carbon," Water Res., Vol. 18, No. 8 (1984)
	H	B.E. Reed, "Identification of Removal Mechanisms for Lead in Granular Activated Carbon (GAC) Columns, Separation Science and Technology," 30(1), pp. 101-116 (1995)
	I	Andrzej Wilczak and Thomas Keinath, "Kinetics of Sorption and Desorption of Copper(II) and Lead(II) on Activated Carbon, Water Environment Research," Vol. 65, pp. 238-244 (1993)
	J	Brian E. Reed and Sujith Kumar Nonavinakere, "Metal Adsorption by Activated Carbon: Effect of Complexing Ligands, Competing Adsorbates, Ionic Strength, and Background Electrolyte," Separation Science and Technology, 27(14), pp. 1985-2000 (1992)
	K	Alan J. Rubin and Danny L. Mercer, "Effect of Complexation on the Adsorption of Cadmium by Activated Carbon," Separation Science and Technology, 22(5), pp. 1359-1381 (1987)
	L	Margaret A. Shay and James E. Etzel, "Treatment of Metal-Containing Wastewaters by Carbon Adsorption of Metal-Chelate Complexes," 46 th Purdue Industrial Waste Conference Proceedings (1992)
	M	John V. Accashian, et al., "Aerobic Growth on Nitroglycerin as the Sole Carbon, Nitrogen, and Energy Source by a Mixed Bacterial Culture," Applied and Environmental Microbiology, pp. 3300-3304 (Sept. 1998)
	N	Devon A. Cancilla et al., "Detection of Aircraft Deicing/Antiicing Fluid Additives in a Perched Water Monitoring Well at an International Airport," Environ. Sci. Technol. 32, pp. 3834-3835 (1998)
	O	C.B. Coburn, et al., "Environmental effects of engine coolant additives" (Abstract), Chemical Abstracts, Vol. 130, No. 22, 300765m, pp. 1052 (1999)
	P	Donald E. DeFord, et al., "The determination of consecutive formation constants of complex ions from polarographic data," J. Am. Chem. Soc. 73, 5321 (1951)
	Q	Cyndee L. Gruden, et al., "Fate and toxicity of aircraft deicing fluid additives through anaerobic digestion," Water Environment Research, Vol. 73, No. 1, pp. 72-79 (January/February 2001)
	R	G. Heath, et al., "The use of differential pulse polarography for the determination of stability constants," Jnl. Electroanal. Chem., 84, pp 295-302 (1977)
	S	Dana W. Kolpin, et al., "Pharmaceuticals, hormones and other organic wastewater contaminants in U.S. streams, 1999-2000: A national reconnaissance," Environmental Sci. and Technol., Vol. 36, No. 6 (2002)
	T	E.P. Parry, et al., "Evaluation of Analytical Pulse Polarography," Analytical Chemistry, Vol. 37, No. 13, pp. 1634-1637 (1965)
	U	Mark Hernandez, "Investigation of selected potential environmental contaminants: benzotriazoles," EPA 560/2-77-001 (1977)
	V	Ido Leden, "Einige potentiometrische messungen zur bestimmung der komplexionen in cadmiumsalzlosungen," Eingegangen am 24.1.41, pp. 160-181

Examiner Signature	Date Considered
--------------------	-----------------

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



PTO/SB/08A (Modified) Information Disclosure Statement By Applicant Sheet 2 of 2	<i>Complete if known</i>	
	Application Number	10/627,947
	Filing Date	7/25/2003
	First Named Inventor	Mark Hernandez
	Art Unit	Not yet assigned
	Examiner Name	Not yet assigned
	Attorney Docket Number	MJ-1

Other Documents (contd)

Examiner		
Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	W	Jefferey Cornell, "The environmental impact of 4(5)-Methylbenzotriazole from aircraft deicing operations," University of Colorado (2002)
	X	Arup K. SenGupta (editor), "Environmental separation of heavy metals," chapter 7 by Brian E. Reed, "Removal of heavy metals by activated carbon," CRC Press LLC (2002)
	Y	D. R. Crow, "Polarography of metal complexes," Academic Press (1969)
	Z	Stanton B. Smith, "Trace metal removal by activated carbon," Princeton University (1973)
	AA	T. N. Chen, "Treatment of zinc industrial wastewater by combined chemical precipitation and activated carbon adsorption," 24 th Mid-Atlantic Industrial Wastewater Conference, pp. 120-134 (1992)

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.